

WeeklyReport_2018-12-03_12-09_E

Week Overview

$9 + 6 + 3 + 9 + 3 + 3 + 7 = 40$ hours

Project: RSATree

- Xiaohan made some further modifications to the function of json, which can automatically generate query statements.
- Mei thought of a faster algorithm for generating SAT. After rewriting it, it was nearly 10 times faster than before.
- I also studied GPU programming a little bit this week, and maybe there is time to rewrite SAT generation to cuda program next week.
- The main problem now is very big, and we must discuss it with the boss next week. First of all, the structure of the SAT leads to huge memory usage (compared to nanocube, hashcube), and this problem is determined by the SAT itself, and secondly there are still problems in query speed and accuracy. Nanocube, hashcube is an accurate query, our algorithm is not guaranteed to be accurate, and the space and time indicators are partially worse than the former, which is unacceptable.

Paper Reading

This week I reread the article of nanocube and its predecessors, and I have a new understanding of their principles.

- imMens: Real-time Visual Querying of Big Data Zhicheng

using GPU for data querying. process raw datacube

- Nanocubes for Real-Time Exploration of Spatiotemporal Datasets

using Quadtree and other Space saving tips

- Hashedcubes: Simple, Low Memory, Real-Time Visual Exploration of Big Data

use laryering hasetable

Daily affairs

- attend contest in codeforces and nowcoder, leetcode
 - I haven't done the assignments of Geometric Modeling. I must complete it next week
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Short-term perspective

Work	deadline	Tip
write the GPU version of sat process accelerate	Fri	RSATree
complete the assignments of Geometric Modeling	Sun	RSATree

Long-term perspective

Work	deadline	Tip or Progress
RSATree Project	18.12.31	
GraphLayout	18.12.31	understand the visualization part
complete homework of GM, CG	19.01.14	first complete the GM
Dimensionality Reduction	19.02.01	more test